NATURAL HISTORY MISCELLANEA

Published by

The Chicago Academy of Sciences

Lincoln Park-2001 N. Clark St., Chicago 14, Illinois, U.S.A.

No. 183

December 15, 1965

New and Unusual Snakes of the Genus Pliocercus From Oaxaca, Mexico

HOBART M. SMITH AND MACREAY J. LANDY*

Among herpetozoans recently collected by Thomas MacDougall in southern Mexico is a snake from near Putla, Oaxaca, that represents a hitherto unknown taxon. We are indebted to Mr. MacDougall for his continued interest in the herpetological exploration of southern Mexico, and to Dr. D. F. Hoffmeister and Dr. Paul Silverman of the University of Illinois Department of Zoology for financial support and provision of the facilities essential to the study of this material.

Pliocercus elapoides occidentalis subsp. nov.

Holotype.—Univ. Ill. Mus, Nat. Hist. 61410, a half-grown male, taken at La Concepción, near Putla, Oaxaca, May 24, 1965, by Mr. Thomas MacDougall.

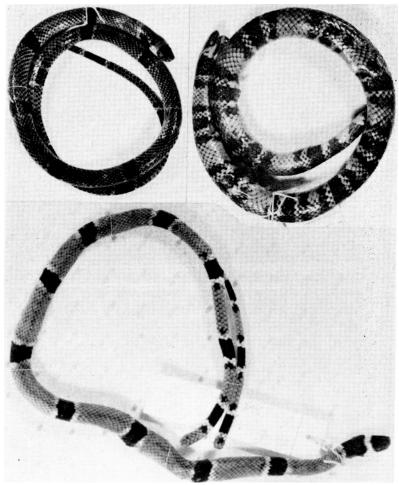
Definition.—A member of the elapoides group, with short primary black rings (3-4 scale lengths), red rings bordered on each end by narrow yellow rings; secondary black rings narrow, indistinct; red areas largely lacking black pigmentation, unlike other forms of this group; black rings 9 on body, 6 on tail, complete ventrally; infralabials 8, four touching anterior chinshields; anterior temporal extremely elongate, touching three supralabials, posterior temporal lacking; ventrals 130; caudals 95.

Description of holotype. Head flattened in collecting; supralabials 8-8, fourth and fifth entering eye, seventh and eighth largest; nasal divided, in contact with two labials; preoculars 2-2, lower small and located between third and fourth labials; two postoculars, lower smaller; temporals 1+0, the anterior elongate and in contact with three labials; infralabials 8-8, four in contact with anterior chinshields, two in contact with posterior.

Dorsal scale rows 17-17-17, smooth; ventrals 130; anal divided; caudals 95; total length 422 mm, tail 167 mm (broken but tied to specimen).

Head black from anterior to level of anterior tips of parietals, except for yellow rostral and yellow inferior edges of supralabials; chin

*Department of Zoology and Museum of Natural History, University of Illinois, Urbana, Illinois. and gular region grayish white (yellow in life); a white band (yellow in life) across head, through middle of parietals and all but posterior tips of anterior temporals; a broad black nuchal hand, covering 6 scale lengths medially, involving posterior tips of parietals, posterior tip of eighth supralabial and barely extending onto ventrals; following this hand, a series of 9 black rings on body, 6 on tail, all approximately equal in length, covering 3 to 3 1/2 scale lengths middorsally and ventrally;



Pl. 1. Lower, *Pliocercus elapoides occidentalis*, holotype. Upper left, *Pliocercus elapoides diastemus*, UIMNH 54999, Finca San Gerónimo, Volcán Tacaná, Chiapas, 457 mm total length. Upper right, *Pliocercus e. elapoides*, UIMNH 35561, La Gloria, Oaxaca, 374 mm total length.

black rings on body and tail complete, except nuchal collar; black bands bordered by a yellow ring on each side, 1 to 1 1/2 scale lengths in width, wider on tail, interrupted ventrally on posterior portion of body; yellow rings separated by complete broad red rings, covering 8 to 12 scale lengths; secondary black rings in red areas indistinct on body, present as distinct dorsal blotches on tail; only a few dorsal scales in red areas black-tipped, mostly along middorsal line.

Remarks. Use of the elongate anterior temporal and of the absence of the posterior temporal as diagnostic characteristics of this race deserves some comment. A fusion of the anterior and posterior temporal is suggested, since this is a frequent individual variation in many snake taxa. However, none of the 60 available specimens studied in conjunction with this study exhibit a fusion of this sort. On one specimen there is an asymmetrical fusion of the anterior and posterior temporals on one side. The probability of a symmetrical fusion of the two elements as an individual variation occurring on both sides of the head is not great but requires confirmation in additional specimens. Until shown untenable, we accept the character tentatively as diagnostic.

Only Pliocercus elapoides elapoides has a consistent pattern of triads. All other members of the *elapoides* group have triads reduced or absent, the secondary bands if present being narrow. The two forms in geographic proximity to this form are Pliocercus e. elapoides and P. e. diastemus, the former separated from the new form by the Central Plateau and the latter by the Isthmus. Pliocercus elapoides occidentalis can be separated from P. e. elapoides by the following characters: no posterior temporal, 8 infralabials as opposed to 9, black pigment reduced on the scale tips, brown suffusion on the scales in the red areas reduced. no distinct wide secondary black bands on the body. From Pliocercus e. diastemus this form can be separated by reduced black pigmentation in the red areas, 8 infralabials as opposed to an average of 10, a lower caudal count in males (95 versus 106-115), the lack of the posterior temporal, and perhaps by a higher ventral count (130 as opposed to 128 maximum known in males). The closest specimens geographically are some recently collected from Zanatepec, Oaxaca (UIMNH 53104, 53105, 56836, 56837), which have been assigned tentatively as intergrades of Pliocercus e. diastemus and P. e. elapoides (Smith and Lynch, 1965) and one (UIMNH 6315) from El Soledad, Oaxaca, assigned to P. e. diastemus. From the intergrade specimens the new form may he separated by the lower number of infralabials (8 versus 9 or 10), the lower number of black body rings (9 versus 10 to 13), the lower number of primary black caudal rings, the higher number of ventrals (130 versus 125 to 127), the lack of the posterior temporal, and the reduced black pigmentation in the red areas. The El Soledad specimen is a male with 127 ventrals, 108 caudals, 9 infralabials, 1+1 temporals, 11 black primary body rings, 7 black primary caudal rings, 5 labials touching the anterior chinshields, the secondary black rings distinct but narrow, the black pigmentation on the scale tips in the red areas present and a medium amount of brown suffusion on the scales in the red areas. These characters agree with the diagnosis of *P. e. diastemus* (Smith, 1941) and with our large series of the subspecies. The El Soledad and Putla regions are apparently physiographically different. El Soledad occurs in the southern limits of the Sierra de Miahuatlân and Putla in the northern part of the Sierra Madre del Sur. Both regions contain endemic forms. The physiographic separation is apparently sufficient to permit differentiation of *P. e. occidentalis* from *P. e. diastemus*. The El Soledad population of *P. e. diastemus* probably represents a disjunct population of this subspecies.

The El Soledad and Putla specimens represent the only known specimens of the *elapoides* group from the Pacific coast region north of the Isthmus, although existence of a member of this group in that area has been postulated previously (Smith 1941, 1943). The El Soledad specimen represents a sizable range extension for *Pliocercus e. diastemus*, extending the range across the Isthmus and into the state of Oaxaca. The lack of specimens from intervening areas at low and moderate elevations is probably due to a lack of collecting rather than of suitable habitat.

Etymology. The trivial name occidentalis ("of the west"), used here as an adjective, refers to the unique geographic occurrence of this subspecies.

LITERATURE CITED

Smith, H. M. 194-1. On the. Mexican snakes of the genus *Pliocercus*. Proc. Biol. Soc. Washington, 54:119-124.

______1943. Another Mexican snake of the genus *Pliocercus*. Journ. Washington Acad. Sci., 33 (11):344-345.

and J. Lynch. 1965. New or unusual amphibians and reptiles from Oaxaca, Mexico. 1. Herpetologica, 21 (3):168-177.